Seeking a Full-Time position in the field of Electrical Engineering

EDUCATION

University of Houston – Houston, TX

Pursuing: **Bachelor of Science in Electrical Engineering May 2017**

Concentration**: Power Engineering**

GPA: 2.8

WORK EXPERIENCE

**Lone Star College**: Math and Chemistry Tutor **January 2013 – Present**

* Explaining concepts to students with little or no background in math or chemistry
* Identifying students’ gaps in the course material and addressing those issues so they can excel in class
* Taking the right approach when students may be agitated due to their accumulated work load

**Tasco Auto Color**: Painter/Delivery **May 2016 – August 2016**

* Mixing paint to match a specific auto color given the sample color from the car (fuel door cover)
* Using a color scanner to detect the different colors used by the manufacturer to make that specific color

RELEVANT PROJECTS AND ASSIGNMENTS

**Design of a Curve Tracer January 2016 – May 2016**

* Designed and built a circuit to give the I-V characteristics of a transistor (MPF102) with the aid of a servo loop controller to control current and voltage. The I-V characteristics obtained were compared to the ideal characteristics taken from an industry curve tracer. Results were similar

**Analysis of Three-Phase and Single-Phase Transformers January 2016 – May 2016**

* Analyzed and designed different cases for 3-phase transformers (Ideal and Linear), balanced three- phase circuits, inductance, capacitance and mutual inductance. Finding the power delivered to a load with the minimum power loss given specific parameters.

**Automatic Control Systems January 2016 – May 2016**

* Used Block diagrams, transfer functions, stability, root-locus, and system response to find and analyze the output response of a given circuit or control model.

**Design of a Traffic Light Controller August 2015 – October 2015**

* Developed a traffic light controller using logic gates, J-K flip flops and LEDs
* Utilized next state tables (4 inputs and 6 outputs) to represent two traffic lights (Used SimuAid to simplify equations)

SKILLS

* **Software:** PSpice,LogicAid, SimuAid, PSIM, AutoCad, MATLAB, MS (Excel, Word, PPT, etc)
* **Programming**: C language, Assembly Language
* **Hardware**: Electronic/Power components – transformers, rectifiers, regulators, relays, logic gates, oscilloscopes, multimeters, function generators, filters, latches, flip flops and others
* **Other relevant knowledge:** thermodynamics, thermal imaging, stub matching, Maxwell equations, smith charts and others

CURRENTLY LEARNING

* **Electromechanical Energy Conversion** – understanding the basic concepts of the electrical machines working in the modern power system. Furthermore, modeling and analysis of various types of generators and motors
* **Power electronics and Electric Drives** – Analyzing modern switched-mode power electronics circuits, converters (AC – DC, DC –DC, DC –AC, AC –AC), diodes, transistors, thyristors, AC drives and DC drives
* **State-Space Controls Systems** – mathematical modeling of physical systems as a set of inputs, outputs and state variables related by first-order [differential equations](https://en.wikipedia.org/wiki/Differential_equation).
* **Braille Display Project (Team of 4- Responsible for the power electronics part of the project) –** Processing text and converting it into braille using nitinol wires which expand when applied an average current of 125 mA.

Current Organizations And Hobbies

* **IEEE member** – Attending meetings to learn about companies and what their goals are for the future
* **UnitedWeDream member** – advocating for access to higher education for undocumented youth and their rights
* **Liberty Baptist Church member** – Assisting and helping the Sunday school teacher with the fifth grade class
* **Classical music** – listening to classic music while studying for a quiz or an exam
* **Indoor Soccer** – Playing indoor soccer with family and friends on Saturday or Sunday nights